

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte SUSAN MARIE KLING, RENE KRUIDENIER,  
ERIC K.C. LEE and MARTIN F. DEBNEY

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Appeal No. 2003-0606  
Application No. 09/281,837

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ON BRIEF

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Before KIMLIN, PAWLIKOWSKI and GARRIS, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-9, all the claims remaining in the present application. Claim 1 is illustrative:

1. A process for making a thermoplastic film by the blown film extrusion process which comprises extruding a molten thermoplastic polymer through a tubular die to form a tube of molten polymer, contacting the inner surface of the tube of

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molten polymer as it exits the die with an aqueous solution of a water-soluble polysaccharide ether, inflating the tube of molten polymer to form a blown tubular film and then collapsing the blown film to a flat web.

The examiner relies upon the following references as evidence of obviousness:

Savage	2,831,852	Apr. 22, 1958
Salzinger	3,252,826	May 24, 1966
Schirmer	5,674,607	Oct. 07, 1997

Appellants' claimed invention is directed to a blown film extrusion process for making a flat web of thermoplastic polymer. The process entails contacting the inner surface of the formed tube of molten polymer with an aqueous solution of a water-soluble polysaccharide ether. Appellants state in their specification that "[i]t would be desirable to provide materials which can be used as a sock solution in blown film extrusion processes which exhibit better performance than mineral oil" (page 2, first paragraph).

Appealed claims 1-9 stand rejected under 35 U.S.C. § 103 as being unpatentable over Schirmer in view of Salzinger.

The examiner incorrectly states in the Answer that "appellant's [sic, appellants'] brief includes a statement that claims 1-9 do not stand or fall together and provides reasons as set forth in 37 CFR § 1.192(c)(7) and (c)(8)" (page 2 of Answer,

penultimate paragraph). On the contrary, appellants submit at page 2 of the Brief that "[f]or the purposes of this appeal, the Board may consider all pending claims in one group that stands or falls together." Accordingly, all the appealed claims stand or fall together with claim 1, and we will limit our consideration of this appeal to the examiner's rejection of claim 1.

We have thoroughly reviewed each of appellants' arguments for patentability. We are in complete agreement with the examiner, however, that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the examiner's rejection for the reasons set forth in the Answer, which we incorporate herein, and we add the following for emphasis only.

Appellants have not refuted the examiner's factual determination that Schirmer, like appellants, discloses a process for making a thermoplastic film by the blown film extrusion process comprising extruding a molten thermoplastic polymer through a tubular die to form a tube of molten polymer, contacting the inner surface of the tube of molten polymer with an aqueous solution, inflating the extrudate to form a blown film, and then collapsing the blown film into a flat web.

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Schirmer does not, as recognized by the examiner, disclose that the aqueous solution which coats the inner surface of the tube comprises a water-soluble polysaccharide ether. However, there is no dispute that Salzinger discloses contacting the surface of a film with an aqueous solution of a water-soluble polysaccharide ether for the purpose of imparting anti-fogging and anti-static properties to the film. Consequently, since Schirmer teaches utilizing the films for packaging applications, such as meat, we are persuaded by the examiner's reasoning that one of ordinary skill in the art would have found it obvious to treat the packaging film of Schirmer with the water-soluble polysaccharide ether of Salzinger "in order to provide a functional coating which exhibits anti-fogging and anti-static properties" (page 5 of Answer, line 2). As pointed out by the examiner, Schirmer expressly teaches that the heated fluid which contacts the inner surface of the extruded tube can be a functional coating (see column 4, lines 8-11).

Appellants cite Savage as evidence that it was known in the art that water-soluble cellulose ethers gel at temperatures of 45-50°C and, therefore, "a person skilled in the art would not use them in Schirmer's process where the heated water was maintained at temperatures between 183°F (83.8°) and 204°F

(95.5°C) to raise the temperature of the hot blown film to above its orientation temperature" (page 4 of Brief, third paragraph).

We are satisfied, however, that the examiner has refuted this argument at page 5 of the Answer. The examiner's rationale at page 5, second full paragraph, follows:

Savage teaches how to make water soluble cellulose ethers. The process uses a highly concentrated aqueous alkali cellulose solution of 30-60% (2:19-26) in a two stage reaction. The reaction temperatures include a first stage at 30°-40°C, and a second stage of 40°-80°C (2:19-36). The end product, which is a highly concentrated solution, forms a gel when cooled to below 45°-50°C (2:44-45). Appellant's [sic, appellants'] argument has incorrectly assumed that a gel is formed "above" 45°-50°C. Rather, this gel point is actually a cloud point or the temperature at which the soluble cellulose ether precipitates from the solution in the form of a gel (rather than a powder). Thus, Savage suggests that a cellulose ether solution requires heating above 40°C-50°C (104°-122°F) to remain in solution. For example, Salzinger uses a very dilute solution, 0.2% w/w, when coating a film (4:50-60) and dries the solution at 80°C. The slow evaporation of water at this temperature likely allows a good coating to form uniformly across the polymeric film. However, if appellant's [sic, appellants'] argument is correct, then the solution would gel upon heating before reaching the drying temperature and therefore would be unable to form a desirable coating. It is also noted that Savage teaches that the thermal stability, or decomposition temperatures, of the water soluble cellulose ethers is above 250°C as shown in Table 1 (3:16-32) which further suggests that the cellulose ether would not be effected by the process temperatures used in the process of Schirmer.

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We note that appellants have not responded to the examiner's reasoning.

Appellants also contend that "anti-fogging and anti-static properties of the coating do not solve the problem of **some thickened edges** of the film described by Schirmer" (page 5 of Brief, first full paragraph). This argument misses the point of the examiner's reasoning for combining the references. Manifestly, the motivation to treat the film of Schirmer with the water-soluble polysaccharide ether of Salzinger would not be to solve the problem of thickened edges but, rather, to impart anti-fogging and anti-static properties to the film.

As a final point, we note that appellants base no argument upon objective evidence of nonobviousness, such as unexpected results, which would serve to rebut the prima facie case of obviousness established by the examiner.

In conclusion, based on the foregoing, and the reasons well-stated by the examiner, the examiner's decision rejecting the appealed claims is affirmed.

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No time period for taking any subsequent action in  
connection with this appeal may be extended under 37 CFR  
§ 1.136(a).

AFFIRMED

EDWARD C. KIMLIN	)	
Administrative Patent Judge	)	
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BRADLEY R. GARRIS	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
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	)	
BEVERLY PAWLIKOWSKI	)	
Administrative Patent Judge	)	

ECK:clm

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Stephen S. Grace  
P.O. Box 1967  
Midland, MI 48641-1967